



## Original Communication

## Child deaths from family violence in Dakahlia and Damiatta Governorates, Egypt

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## ABSTRACT

This retrospective study evaluated 41 cases of child deaths of both sexes from family violence and autopsied at Mansoura Morgue of Forensic Medicine Institute from 1996 to 2005. According to their ages, children were divided into four groups as follow: <3 years; 3–6 years; 6–9 years and 9–12 years. Some socio-demographic parameters concerning the perpetrators were investigated such as level of education of fathers, parent marital status and residence. Also, the cause of violence and the manner of deaths were recorded. Results revealed that the highest incidence of children deaths was between 3 and 6 years (39.0%) and the lowest incidence was between 9 and 12 years (4.9%). The majority of perpetrators were males (75.62%); they comprised children fathers in 60.98%, while female perpetrators represented 24.39%; they comprised the children mothers in 7.32%. Fathers who lived in rural areas represented 75.6% and 24.4% in urban areas. Regarding the level of education of fathers of decedent children, 36.6% were illiterate, 17.1% were highly educated and 46.3% were less than high school education. The marital status of those parents were as follows: separated couples (51.2%), still married couples (22.0%); fathers with multiple wives (26.8%). Blunt trauma in abusive manner was the most common form (63.4%). It was concluded that some socio-demographic parameters are considered risk factors related to intrafamilial violence and it should be considered by Family Planning Programs to estimate the magnitude of this problem in our community on a large scale, offering psychological assessment and assurance for risky perpetrators aiming to prevent such fatal child abuse crimes.

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## 1. Introduction

Childhood is considered as a development period with very high vulnerability to physical and psychosocial risks.<sup>1</sup> Child maltreatment from family violence is a medical and public health concern that affects nearly 12 of every 1000 children annually.<sup>2</sup>

Family violence including corporal punishment, violence against the child with the intention of harm and witnessing violence between parents. This violence is affected by race, socio-economic status and family structure.<sup>3</sup>

Child homicide is a significant cause of child mortality through inflicted abusive injuries in several countries.<sup>4–6</sup> Filicide which is the killing of a child aged between 0 and 18 years by his or her parents is one of crimes that is difficult to understand because many factors are involved in the dynamics of such act.<sup>7</sup>

Fathers are known as well perpetrators in cases of severe physical child abuse and neglect. The role they play in shaping risk for physical child abuse is mainly through many pathways based on socio-demographic and psychosocial factors.<sup>8</sup>

Nayda and Pridham (2004)<sup>9</sup> stated that child abuse is an international phenomenon occurring in all socio-economic groups. However it is still underestimated and unreported due to poor collaboration. Obtaining accurate identification and details of child maltreatment cases is a challenge for many reasons.<sup>10</sup> This usually resulted in failure to explain the phenomenon of child abuse and child homicide due to family violence. Generally the extent of child abuse in Arab countries is not well identified.<sup>11</sup>

In this retrospective study, we aimed to study the socio-demographic factors of perpetrators who committed such crimes, that in turn can help in generating a base of knowledge for monitoring and evaluating child maltreatment and family violence cases.

## 2. Subjects and methods

A retrospective study was done on suspicious child deaths from Dakahlia and Damiatta Governorates which were autopsied according to attorney request at Mansoura Morgue of Forensic Medicine Administration during the period from 1996 to 2005. The number of child deaths of both sexes was 41; their ages ranged from below 3 years up to 12 years. According to their ages, children were divided into four groups as follow: <3 years; 3–6 years; 6–

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**Table 1**Children deaths from family violence ( $n = 41$ ) among total autopsied children ( $n = 315$ ).

	Total autopsied children ( $n = 315$ ) <sup>*</sup>				Children deaths from family violence	Children deaths from family violence
	Male		Female		% Compared to total number of deaths ( $n = 2967$ )	% Compared to total autopsied children ( $n = 315$ )
	<i>n</i>	%	<i>n</i>	%		
<i>P</i> value	152	48.25	163	51.75	1.38	13.02
	.277					

*P* value insignificant.<sup>\*</sup> 315 Autopsied children represent 10.62% of total number of deaths during the same period ( $n = 2967$ ).

9 years and 9–12 years. The Egyptian law considers the subject as a child up to 18 years.<sup>28</sup>

Some socio-demographic parameters concerning the perpetrators were investigated such as level of education of fathers, parent marital status and residence. Also, the cause of violence and the manner of deaths were recorded.

Data were presented as numbers and percentages by using SPSS version 10. Pearson correlation coefficient was done and *P* value is considered significant at  $<0.05$ .

### 3. Results

Total number of deaths (i.e. children, adults and elderly) in Dakahlia and Damiatta Governorates during the period from 1996 to 2005 was 2967. Total number of autopsied children represented 10.62% of total deaths ( $n = 315$ ) with no statistical difference between males and females ( $p = .277$ ). Child deaths resulting from family violence ( $n = 41$ ) represented 1.38% of total number of deaths ( $n = 2967$ ) and 13.02% of total autopsied children ( $n = 315$ ) (Table 1).

Table 2 shows the percentages of victims age groups:  $<3$  years (22.0%), 3–6 years (39.0%), 6–9 years (34.1%) and 9–12 years (4.9%).

Table 3 reveals that the majority of perpetrators are males (75.62%). They comprise the child's father (60.98%), step-father (12.20%) and grandfather (2.44%). The child's mother is the perpetrator for only 7.32% of deaths while step-mothers represent 17.07%. Regarding the level of education of fathers of decedent children, they are of three categories: 36.6% illiterate, 17.1% highly educated and 46.3% less than high school education. The marital status of those parents are as follows: separated couples (51.2%), still married couples (22.0%) and fathers with multiple wives (26.8%).

**Table 2**Age groups of children deaths from family violence ( $n = 41$ ).

Age of decedent children						
<3 years		3–6 years		6–9 years		9–12 years
<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
9	22.0	16	39.0	14	34.1	2
						4.9

**Table 3**

Perpetrators, fathers' education, parent marital status in relation to decedent children.

Perpetrators						Father's education			Parent marital status		
Father	Mother	Step-mother	Step-father	Grandfather		Illiterate	Less than high school	High school graduate	Still married couples	Separated couples	Multiple wives
<i>n</i>	25	3	7	5	1	15	19	7	9	21	11
%	60.98	7.32	17.07	12.20	2.44	36.6	46.3	17.1	22.0	51.2	26.8

Table 4 shows the residence and causes of violence of decedent children. Regarding the residence: 75.6% lived in rural areas and 24.4% in urban areas. The causes of violence are: parents argument (46.3%), children punishment (36.6%) and financial troubles (17.1%).

Table 5 shows the different manner of children deaths. Blunt trauma in abusive manner on different parts of the body is the most common form of violence (63.4%), followed by burn (14.6%) and stabbing (12.2%). Asphyxial deaths from smothering or throttling and poisoning all have equal incidence (2.4% for each). The least incidence is from firearm injuries (2%).

Table 6 reveals significant correlations between all the studied parameters.

### 4. Discussion

Domestic violence is defined as any sort of physical, sexual or emotional abuse perpetrated by one partner to another and refers also to abuse towards children and elderly in the household.<sup>12</sup>

Child death as a result of abuse and neglect is a tragic outcome that occurs in all nations of the world. The true incidence of fatal child abuse and neglect is unknown. The most accurate incidence data of such deaths have been obtained from countries where multi-agency death review teams analyze the causes of child fatalities.<sup>10</sup>

Egypt as considered a developing country with multiple societal unstable familial pattern of parent child interactions and accumulation of the frustration that go with unemployment, illness, housing problems and other stresses related to insufficient income and low socio-economic status. The cultural model of raising children supports legitimizing corporal punishment of children.<sup>13</sup>

In the present study, fathers comprised the main perpetrators, these results go in consistent with many studies done in Québec;<sup>14</sup>

**Table 4**Residence and causes of violence in relation to decedent children ( $n = 41$ ).

	Residence		Causes of violence		
	Urban	Rural	Children punishment	Parent argument	Financial troubles
<i>n</i>	10	31	15	19	7
%	24.4	75.6	36.6	46.3	17.1

**Table 5**Manner of death of decedent children ( $n = 41$ ).

Blunt trauma		Burn		Stabbing		Smothering		Throttling		Poisoning		Firearm injuries	
<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
26	63.4	6	14.6	5	12.2	1	2.4	1	2.4	1	2.4	1	2.4

**Table 6**

Pearson correlations between all the studied parameters.

Pearson correlation "r coefficient"	Age groups	Perpetrators	Fathers' education	Marital status of parents	Residence	Causes of violence	Manner of death
<i>Age groups</i>							
<i>r</i>	1.000	.658**	.673**	.732**	.622**	.428**	.550**
<i>P</i>	–	.000	.000	.000	.000	.002	.000
<i>Perpetrators</i>							
<i>r</i>	.658**	1.000	.573**	.540**	.606**	.536**	.521**
<i>P</i>	.000	–	.000	.000	.000	.000	.000
<i>Fathers' education</i>							
<i>r</i>	.673**	.573**	1.000	.678**	.586**	.614**	.585**
<i>P</i>	.000	.000	–	.000	.000	.000	.000
<i>Marital status of parents</i>							
<i>r</i>	.732**	.540**	.678**	1.000	.588**	.428**	.565**
<i>P</i>	.000	.000	.000	–	.000	.003	.000
<i>Residence</i>							
<i>r</i>	.622**	.606**	.586**	.588**	1.000	.522**	.427**
<i>P</i>	.000	.000	.000	.000	–	.001	.004
<i>Causes of violence</i>							
<i>r</i>	.428**	.536**	.614**	.428**	.522**	1.000	.442**
<i>P</i>	.002	.000	.000	.003	.001	–	.002
<i>Manner of death</i>							
<i>r</i>	.550**	.521**	.585**	.565**	.427**	.442**	1.000
<i>P</i>	.000	.000	.000	.000	.004	.002	–

\*\* Considered highly significant as  $p < 0.01$ .

different studies in USA,<sup>15–17</sup> On the other hand, it differs from early studies done in USA,<sup>18</sup> Canada,<sup>19</sup> Finland<sup>5</sup> and Turkey.<sup>7</sup> This could be explained that fathers are exposed to different life stresses more than mothers do.

Regarding age of decedent children; we found that 95.1% of victims occurred below age of 10 years. These results go in consistent with previous researches done in Sweden,<sup>20</sup> USA,<sup>21</sup> Turkey,<sup>7</sup> Québec<sup>14</sup> and USA.<sup>17</sup>

On studying residence, a definite association between residence and both socio-economic stresses and level of education which affects child maltreatment and filicide in a significant way has been established. This goes in accordance with different studies done in Egypt,<sup>13</sup> USA,<sup>22,23,27</sup> differs from a study done by Palazzi et al. (2005),<sup>24</sup> who found that there was no significant correlation with those living in urban areas in Italy.

Regarding parents' marital status, our finding goes in accordance with that done in Italy by Palazzi et al. (2005)<sup>24</sup> who proved a significant correlation with maltreated children and living in a single parent family and other studies done in USA;<sup>16,23</sup> while differs from that done by Karakus et al. (2003).<sup>7</sup>

A significant correlation was proved between paternal filicide and their level of education, a result which goes in consistence with another study done in Egypt.<sup>13</sup> This indicates that level of education of fathers affects the degree of severity of the manner in relation to the cause i.e. the lower education of the father, the higher the degree of physical punishment, a finding which was proved in this study.

Another study done by Atta and Youssef (1998)<sup>25</sup> found that father's education significantly affects their behavior towards their children, as it is usually associated with better career opportunity, thus better socio-economic status level. So the lower the educational level the more parents' adverse life stresses with increase

risk for such behavior. This explanation was proved by a study done in Turkey.<sup>7</sup>

Regarding causes of violence; our results go in consistent with two Egyptian studies;<sup>13,25</sup> who reported that Egyptian parents tend to use force in the form of beating to discipline the child particularly when child shows disruptive behavior, delinquency and disobedience at home or school. This could increase in severity and may be fatal in low socio-economic families.

Lastly, trauma was the most common cause of death in childhood, and inflicted head injuries is the most common cause of traumatic death in infancy and this goes in accordance with studies done in Finland<sup>5</sup> and USA.<sup>23,26</sup> While, Friedman et al. (2005)<sup>17</sup> declared that the majority of parents killed their children by shooting.

To summarize our results, perpetrators were mostly male especially fathers, a high proportion of victims were aged below 10 years. Low educated fathers, separated couples, rural residents represented risk factors for children homicide. Family argument was the main leading cause of violence; and most of the cases involved violent means of homicide especially blunt trauma in abusive manner. Our findings provide insights into the nature of children homicide including filicide, a phenomenon that is not well understood.

It is to be concluded that identification of high-risk families and the delineation of precipitating factors involved in each particular situation; helps in proper estimation of the problem which by turn help in planning prevention strategies programs, including community access to immediate psychiatric care, prompt intervention at the first report of child abuse.

Also, health administrations should be actively involved and directed mainly towards less educated rural population and unstable vulnerable families.

## Conflict of Interest

None declared.

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